314 436-7600

Bite: West are Landfill ID # MEDO19900932
Break: 10.9 OW
Other: Comments
9-4-96

SVERDRUP ENVIRONMENTAL, INC.

MEMORANDUM

September 4, 1996

Steve Kinser, USEPA Region VII

40057487 SUPERFUND RECORDS

FROM:

TO:

Jon B. Niffenegger, Sverdrup Environmental

SUBJECT:

Review comments on Physical Characterization Technical Memorandum for the

West Lake Landfill OU2, Bridgeton, Missouri

The following memorandum presents review comments stemming from the review of the Physical Characterization Technical Memorandum for the West Lake Landfill OU2, dated August 1996.

<u>Location*</u>	Comment
1.4/1-3(3)	Insert a comma between 'groundwater' and 'surface water'. ?
2.3/2-3(3)	Change was to were in 'which was found'.
2.3/2-3(10,16)	Change the word 'slow' to 'low' in reference to permeability.
2.4-General	Capitalize the word 'series' when it follows a specific name (i.e. Meramecian Series) as in Section 4.1.
2.4.1/2-4(11)	Change 'Kinderhookian Formation' to 'Kinderhookian Series'.
2.5.1/2-6(8)	Delete 'formations' from 'Meramecian series formations' and capitalize 'series'.
2.5.1/2-6(14)	Reword sentence 'The Ordovician-age, Cincinnatian-series Maquoketa shale underlying these formations probably' to 'The Ordovician-age Maquoketa shale of the Cincinnatian-series, underlying these systems, probably'.
3.2/3-2(6)	Delete the comma after 'riser' and replace it with the word 'and'.
3.2.1/3-6(10)	Place () around the word 'new' as in the previous sentence.

Table 3-3-General

All vertical survey data should be presented to the nearest 1/100 of a foot. Screened Interval values indicate that the ground surface or reference point elevation is actually measured to the nearest 1/100 of a foot. When data is given to two decimal places (0.00) all data in that column should be presented to two decimal places.

Table 3-3-General

Please include in Notes at end of table what coordinate system and zone is used (state plane or UTM) and vertical datum is used (NAD 27 or NAD 83).

Figure 3-2

This figure does not match the description given the text. Attached is a marked-up copy indicating errors and suggested corrections. In the figure it would appear that the annular space around the screen is backfilled with cement/bentonite grout. The sentence 'Slope grout away from casing to prevent infiltration, but' seems to be incomplete.

3.2.2.1-General

It is unclear from the text what the annular space above the bentonite seal is backfilled with. Figure 3-2 indicates that a bentonite grout was used.

3.2.2.1-General

A typical construction diagram for the 'long-screened interval Piezometers' should be included.

3.2.3/3-23-General

This section should state what coordinate system and zone is used (state plane or UTM) and vertical datum is used (NAD 27 or NAD 83). Based on the coordinates given in Table 3-3 it would appear that the northings and eastings were surveyed to the nearest 1/100 of a foot and not 1/10 of a foot as indicated in the text. If the surface elevation was surveyed to the nearest 1/100 of a foot why was the data rounded to the nearest 1/10 of a foot? What is the site coordinate system referred to in the text? How does it differ from state plane or UTM coordinates?

3.2.6.1-General

There is a shift in tense in this section from the previous sections. Previous sections referred to site activities in the past tense and this section uses present tense ('is' instead of 'was').

4.1.1/4-1(1)

Capitalize 'site' following 'West Lake'.

4.1.1.3/4-4(9)

Sentence appears to contradictory. It first states that '(zero to one fracture per foot)' was observed and then states that 'up to two fractures per foot' were observed within the same formation. It is suggested that the sentence be reworded to read 'Fractures were rare to infrequent (generally less than two fracture per foot)...'.

5.2/5-2(16)

Replace 'units' with 'formations'. Delete 'formations' from 'Meramecian series formations' and capitalize 'series'.

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5.4/5-5(4)

Delete 'Salem, St. Louis,' and replace with 'deep Salem, St. Louis/Upper

Salem,'.

6.1/6-1(7)

Delete 'St. Louis/Upper Salem' and replace with 'St. Louis'.

6-General

The proposed monitoring network lacks monitoring wells in the northern portion of the West Lake Site (Operable Unit 1, Area 2 and the inactive demolition landfill). Why were these areas omitted from the proposed monitoring network and why are no monitoring points located on the northern side of the inactive landfill. Why were none of the existing wells

were used in developing this characterization.

Section number/page number(line with in section and/or on page)



